

Appl. No. 09/750,015

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Cancelled)
2. (Cancelled)
3. (Cancelled)
4. (Cancelled)
5. (Cancelled)
6. (Cancelled)
7. (Cancelled)
8. (Cancelled)
9. (Cancelled)
10. (Cancelled)
11. (Cancelled)
12. (Cancelled)
13. (Cancelled)
14. (Cancelled)

15. (Previously presented) A conference bridge comprising:

an input unit that operates to receive media data packets from at least two sources forming a media conference, each media data packet defining a media signal;

an energy detection and talker selection unit, coupled to the input unit, that operates to:

determine at least one speech parameter corresponding to each of the

Appl. No. 09/750,015

media signals;

select a set of the sources within the media conference as talkers based on the determined speech parameters; and

output addressing control signals to only the sources within the media conference selected as talkers, the addressing control signals comprising instructions for the sources within the media conference selected as talkers to output their media signals directly to other sources within the media conference.

2 ~~16.~~ (Original) A conference bridge according to claim ~~15~~¹, wherein the addressing control signals comprise packet-based network addresses corresponding to the other sources within the media conference.

3 ~~17.~~ (Original) A conference bridge according to claim ~~15~~¹, wherein the media data packets are audio data packets and the media signals defined by the media data packets are compressed audio signals; and

wherein the speech parameter corresponding to each of the media signals is a number of bytes within each of the compressed audio signals.

4 ~~18.~~ (Original) A conference bridge according to claim ~~15~~¹, wherein the speech parameter corresponding to each of the media signals is a pitch value corresponding to each of the media signals.

5 ~~19.~~ (Original) A conference bridge according to claim ~~15~~¹, wherein the speech parameter corresponding to each of the media signals is an energy level corresponding to each of the media signals.

6 ~~20.~~ (Original) A conference bridge according to claim ~~15~~¹, wherein the media data packets are audio data packets and the media signals defined by the media data packets are audio signals.

7 ~~21.~~ (Original) A conference bridge according to claim ~~15~~¹, wherein the media data packets are audio/video data packets and the media signals defined by the media data packets are audio/video signals.

22. (Cancelled)

Appl. No. 09/750,015

¹⁰ ~~23.~~ (Previously presented) A conference bridge arranged to be coupled to a packet-based network that includes at least two sources of media signals forming a media conference, the conference bridge comprising:

a talker selection unit that operates to:

receive speech indication signals from at least one of the sources within the media conference and to process the speech indication signals including selecting a set of the sources within the media conference as talkers; and

output addressing control signals to only the sources within the media conference selected as talkers, the addressing control signals comprising instructions for the sources within the media conference selected as talkers to output their media signals directly to other sources within the media conference.

¹⁰
¹¹ ~~24.~~ (Original) A conference bridge according to claim ~~23~~, wherein each of the speech indication signals comprises one of a talking indication and a listening indication corresponding to the respective source within the media conference.

¹¹
¹² ~~25.~~ (Original) A conference bridge according to claim ~~24~~, wherein to select a set of the sources within the media conference as talkers, the talker selection unit operates to:

monitor the speech indication signals for talking indications; and

select sources within the media conference as talkers based upon the order in which any talking indications are received at the talker selection unit from the sources within the media conference.

¹⁰
¹³ ~~26.~~ (Original) A conference bridge according to claim ~~25~~, wherein each of the speech indication signals comprises at least one speech parameter corresponding to the respective source within the media conference.

¹³
¹⁴ ~~27.~~ (Original) A conference bridge according to claim ~~26~~, wherein to select a set of the sources within the media conference as talkers, the talker selection unit operates to:

determine which sources within the media conference are sending media signals containing speech with the use of the speech parameters within the speech indication signals; and

Appl. No. 09/750,015

select sources within the media conference as talkers based upon the order in which sources within the media conference are determined to send media signals containing speech.

15 ~~28.~~ (Original) A conference bridge according to claim ¹³~~26~~, wherein the speech parameter within each of the speech indication signals is an energy level corresponding to media signals sent from the respective source within the media conference.

16 ~~29.~~ (Original) A conference bridge according to claim ¹⁵~~26~~, wherein to select a set of the sources within the media conference as talkers, the talker selection unit operates to:

determine which sources within the media conference are sending media signals containing speech with the use of the energy levels within the speech indication signals; and

select sources within the media conference as talkers based upon the comparative energy levels of the sources within the media conference determined to be sending media signals containing speech.

17 ~~30.~~ (Original) A conference bridge according to claim ¹³~~26~~, wherein the speech parameter within each of the speech indication signals is a pitch value corresponding to media signals sent from the respective source within the media conference.

18 ~~31.~~ (Original) A conference bridge according to claim ¹³~~26~~, wherein the speech parameter within each of the speech indication signals is a number of bytes within media signals sent from the respective source within the media conference.

19 ~~32.~~ (Previously presented) A conference bridge according to claim ¹⁰~~23~~, wherein the set of the sources within the media conference selected as talkers comprises a plurality of sources within the media conference; and

wherein the conference bridge further comprises a mixing block and an output unit, the mixing block coupled to the talker selection unit and the output unit coupled to the mixing block; and

wherein the mixing block operates to receive media signals corresponding to sources within the media conference selected as talkers from the input unit, mix these received media signals, and output the mixed result to the output unit.

Appl. No. 09/750,015

¹⁰
~~20~~ 33. (Original) A conference bridge according to claim ~~23~~¹⁰, wherein the set of the sources within the media conference selected as talkers comprises a lone source within the media conference.

¹⁰
~~21~~ 34. (Original) A conference bridge according to claim ~~23~~¹⁰, wherein the addressing control signals comprise packet-based network addresses corresponding to the other sources within the media conference.

¹⁰
~~22~~ 35. (Original) A conference bridge according to claim ~~23~~¹⁰, wherein the media data packets are audio data packets and the media signals defined by the media data packets are audio signals.

¹⁰
~~23~~ 36. (Original) A conference bridge according to claim ~~23~~¹⁰, wherein the media data packets are audio/video data packets and the media signals defined by the media data packets are audio/video signals.

37. (Cancelled)

²⁵
~~25~~ 38. (Previously presented) A packet-based apparatus arranged to be coupled to a conference bridge via a packet-based network, the packet-based apparatus comprising:

an output unit that operates to receive media signals from at least one participant within a media conference and output the received media signal to the conference bridge via the packet-based network; and

a speech detection unit, coupled to the output unit, that operates to process the received media signal, generate a speech indication signal based upon the received media signal, and output the speech indication signal to the conference bridge,

wherein to generate a speech indication signal based upon the received media signal, the speech detection unit operates to:

determine if the received media signal contains speech;

if the received media signal contains speech, include a talking indication within the speech indication signal; and

if the received media signal does not contain speech, include a listening

Appl. No. 09/750,015

indication within the speech indication signal.

²⁶~~38~~ (Original) A packet-based apparatus according to claim ²⁵~~38~~, wherein the output unit comprises a microphone that operates to receive audio signals from the at least one participant within the media conference, the received media signal comprising audio signals received from the microphone.

²⁷~~40~~ (Original) A packet-based network interface arranged to be coupled between a packet-based network and a non-packet-based network, the network interface comprising a packet-based apparatus according to claim ²⁵~~38~~, wherein the output unit receives the media signal from the at least one participant within the media conference from a non-packet-based telephone terminal via the non-packet-based apparatus.

41. (Cancelled)

²⁸~~42~~ (Previously presented) A packet-based apparatus according to claim ²⁵~~38~~, wherein to determine if the received media signal contains speech, the speech detection unit operates to determine an energy level for the received media signal and compare the determined energy level with a speech indication energy threshold.

²⁹~~43~~ (Previously presented) A packet-based apparatus according to claim ²⁵~~38~~, wherein to determine if the received media signal contains speech, the speech detection unit operates to determine a pitch value for the received media signal and compare the determined pitch value with a speech indication pitch threshold.

³⁰~~44~~ (Previously presented) A packet-based apparatus according to claim ²⁵~~38~~, wherein the output unit further operates to compress the received media signal prior to outputting the media signal to the conference bridge; and

wherein to determine if the received media signal contains speech, the speech detection unit operates to determine if the number of bytes of the compressed media signal indicates that the received media signal contains speech.

45. (Cancelled)

46. (Cancelled)

47. (Cancelled)

Appl. No. 09/750,015

48. (Cancelled)

49. (Cancelled)

50. (Cancelled)

51. (Cancelled)

52. (Cancelled)

53. (Cancelled)

31 54. (Currently amended) A packet-based apparatus arranged to be coupled to a conference bridge via a packet-based network, the packet-based apparatus comprising:

an addressing control unit that operates to receive at least one addressing control signal from the conference bridge; and

an output unit that operates to receive at least one media signal from at least one participant within a media conference and output the received media signal, via the packet-based network, to at least one other participant within the media conference based upon the at least one addressing control signal,

further comprising a speech detection unit, coupled to the output unit, that operates to process the received media signal, generate a speech indication signal based upon the received media signal, and output the speech indication signal to the conference bridge,

~~A packet-based apparatus according to claim 53,~~ wherein to generate a speech indication signal based upon the received media signal, the speech detection unit operates to:

determine if the received media signal contains speech;

if the received media signal contains speech, include a talking indication within the speech indication signal; and

if the received media signal does not contain speech, include a listening indication within the speech indication signal.

32 55. (Original) A packet-based apparatus according to claim 31 54, wherein to determine if the received media signal contains speech, the speech detection unit operates to determine an

Appl. No. 09/750,015

energy level for the received media signal and compare the determined energy level with a speech indication energy threshold.

33 ~~56.~~ (Original) A packet-based apparatus according to claim ~~54~~³¹, wherein to determine if the received media signal contains speech, the speech detection unit operates to determine a pitch value for the received media signal and compare the determined pitch value with a speech indication pitch threshold.

34 ~~57.~~ (Original) A packet-based apparatus according to claim ~~54~~³¹, wherein the output unit further operates to compress the received media signal prior to outputting the media signal to the conference bridge; and

wherein to determine if the received media signal contains speech, the speech detection unit operates to determine if the number of bytes of the compressed media signal indicates that the received media signal contains speech.

58. (Cancelled)

59. (Cancelled)

60. (Cancelled)

61. (Cancelled)

62. (Cancelled)

35 ~~63.~~ (Previously presented) A method for a packet-based apparatus to operate within a media conference controlled by a conference bridge, the method comprising:

receiving media signals from at least one participant within the media conference;

processing the received media signal in order to generate a speech indication signal based upon the received media signal; and

outputting the received media signal and the speech indication signal to the conference bridge,

wherein processing the received media signal in order to generate a speech indication signal comprises:

Appl. No. 09/750,015

determining if the received media signal contains speech;

if the received media signal contains speech, including a talking indication within the speech indication signal; and

if the received media signal does not contain speech, including a listening indication within the speech indication signal.

64. (Cancelled)

65. (Cancelled)

66. (Cancelled)

67. (Cancelled)

68. (Cancelled)

69. (Cancelled)

8 ~~70.~~ (Previously presented) A network incorporating a conference bridge according to claim ~~18~~ and further comprising a plurality of sources of media signals within the media conference;

wherein each of the sources within the media conference operates to output the at least one media signal to the conference bridge, receive the addressing control signal from the conference bridge, and output their media signals to the other sources within the media conference based upon the received addressing control signal.

24 ~~71.~~ ¹⁰ (Previously presented) A network incorporating a conference bridge according to claim ~~23~~ and further comprising a plurality of sources of media signals within the media conference;

wherein each of the sources within the media conference operates to output a speech indication signal to the conference bridge, receive the addressing control signal from the conference bridge, and output their media signals to the other sources within the media conference based upon the received addressing control signal.

9 ~~72.~~ (Previously presented) A conference bridge according to claim ~~15~~, wherein the set of the sources within the media conference selected as talkers comprises a plurality of sources

Appl. No. 09/750,015

within the media conference; and

wherein the conference bridge further comprises a mixing block and an output unit, the mixing block coupled to the talker selection unit and the output unit coupled to the mixing block; and

wherein the mixing block operates to receive media signals corresponding to sources within the media conference selected as talkers from the input unit, mix these received media signals, and output the mixed result to the output unit.